Responsive to paragraph 2 of the office action, the Substitute Specification has been amended to correct the units of stress to read in terms of force per unit area. Responsive to paragraph 3 of the office action claim 40 has been amended in similar fashion.

The rejection under 35 USC 103 over the newly cited Matsuura et al reference is respectfully traversed. As taught at column 3, lines 12-25 of Matsuura et al, the first stated objectives relate to adhesion between an interlayer insulating film and a conductor pattern. As further described at column 4, lines 62 - column 5, line 7 the "inventive method" of Matsuura et al involves formation of a "silicon oxide film deposited by the atmospheric pressure CVD [which] is hereinafter referred to as TEOS-APCVD oxide film," quoting from column 5, lines 3-5. As further explained at column 5, lines 8-19 the TEOS-APCVD oxide film (deposited by atmospheric pressure CVD) "discharges almost no moisture" and, accordingly, "the second layer conductor 18 adheres securely to the interlayer insulating film 14 to secure the coverage of the side wall of the contact hole 17." The TEOS-APCVD oxide film formed by the "inventive method" of Matsuura et al should not be confused with the prior art silicon oxide film formed by plasma CVD and described at column 1, lines 21-32 as a "TEOS-PCVD oxide film". In the case of the prior art film 3 described at column 1, lines 21-32 of the reference, "PCVD" stands for "plasma chemical vapor deposition" which, as taught there, is conducted under a "pressure of several Torrs." In contradistinction, the insulating film of the

"inventive method" of Matsuura, i.e., "TEOS-APCVD" oxide film is so named to refer to the atmospheric pressure chemical vapor deposition ("APCVD") by which it is formed. As described at column 4, line 62 to column 5, line 19, formation of the "TEOS-APCVD oxide film" is formed at atmospheric pressure without a plasma.

At column 8, lines 42-55 Matsuura et al contrast their inventive TEOS-APCVD oxide film with the "normal TEOS oxide film" and other films in terms of discharge of moisture and the improved adhesion which results from the fact that the film of their "inventive method" does not discharge moisture, whereas the normal TEOS oxide film and other prior art films do discharge moisture.

It should be noted that the TEOS-APCVD oxide film resulting from the "inventive method" of Matsuura et al has tension stress as is taught at column 7, lines 6-8.

At the top of page 3 of the office action the examiner characterizes the embodiments of Figs. 1A-1E, 5A and 5B as including the step of "forming a first compression stress insulating layer over and in contact with the first aluminum conductive interconnection layer." While the examiner's statement is true with regard to the embodiment of Figs. 5A and 5B, it is not true with regard to the embodiment of Figs. 1A-1E. In the latter embodiment the first conductive layer 12 is covered with a layer of insulating film 14 which is a TEOS-APCVD oxide film having tension

stress. Again refer to column 7, lines 6-8.

At the bottom of page 3 of the office action the examiner acknowledges that "Matsuura does not show wherein the aluminum conductive interconnection layer is sandwiched between and in contact with the insulating films stressed compressively." Nevertheless, the examiner asserts that such a structure and the method producing such a structure "would have been obvious to one of ordinary skill in the art at the time the invention was made... since this would require duplication of essential working steps of ..." Thus, the examiner points to no motivation in the teachings of the reference itself but, rather, invokes a "boilerplate" type rule to the effect that "duplication of essential working steps" is obvious. It is respectfully submitted that such boilerplate rules no longer provide a legally permissible basis for a *prima facie* case of obviousness. The modern rule is that the reference teachings must somehow motivate one skilled in the art to make the modification of a prior art embodiment which is necessary to arrive at the claimed subject matter. Again, there is no such motivation in the teachings of Matsuura et al. However, the case for non-obviousness is even stronger here. As the examiner notes at the bottom of page 3, the "duplication of essential working steps" would involve "forming a second aluminum conductive interconnection layer over and in contact with the second compression stress insulating layer." However, such a step is contrary to the spirit and thrust of the teachings of Matsuura et al. Matsuura et al

would not form a conductive layer on a "compression stress insulating layer". On the contrary, the teachings of Matsuura et al emphasize that the inventive method involves the discovery that a specific tension stress insulating layer, i.e., the TEOS-APCVD layer, provides superior adhesion to the metal conductor. Stated differently, where a conductive layer is to be formed on an insulating layer, the teachings of Matsuura et al lead to selection of a specific tension stress insulating layer on which to form the conductive layer. Such a modification of the embodiment of Figs. 5A and 5B of Matsuura et al does not lead to the present invention.

In conclusion, it is respectfully requested that the examiner reconsider the rejections of record with a view toward allowance of the claims as amended.

Respectfully submitted,

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